

January Open-Ended Questions  
Math for Standards

Name \_\_\_\_\_

**SHOW AND EXPLAIN ALL WORK!!!** Date \_\_\_\_\_

For each open-ended question, make sure that you solve and fully explain how you solved as well as how you know your method is correct.

1. A garden is in the shape of a right triangle. The hypotenuse is 13ft and the longer leg is 12 ft. Find the perimeter and area of the garden. (Hint: Draw a picture)

2. Given the expression below, insert one set of parentheses so that the expression has the greatest value. Find that value. Then redo the problem, inserting one set of parentheses so the expression has the least value. Find that value. Make sure to explain how you know the values you found are the greatest and least.

$$\frac{8 + 2 \times 3 - 4}{2}$$